# U.S. NAVY MEDICINE

October 1982

**Inside:**
Your First Cruise
Navy Surgeon Lamont Pugh

# U.S. NAVY MEDICINE

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**COVER:** Going to sea for the first time can be a bewildering experience. One suddenly encounters a new vocabulary, unfamiliar shipboard customs and etiquette, and a very unique way of life. To help ease the transition from "sandcrab" to "old salt" see page 3. Cover art by Moses Jackson

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# Flight Surgeon and Undersea Expert

The areas of aerospace and undersea medicine are as vast and diverse as their names imply, each presenting a definitive challenge in the total spectrum of operational medicine. Undertaking the challenge of both fields is LCDR Donald C. Arthur, MC, who holds the title of both Naval Flight Surgeon and Naval Undersea Medical Officer at Cubi Point Branch Clinic.

Dr. Arthur has a long association with diving and the undersea world, with over 15 years of scuba experience behind him. In 1980 he attended the Naval Undersea Medical Institute in Groton, CT, earning his dolphins after the 6-month course. The same year he attended the Naval School of Diving and Salvage in Washington, DC, obtaining proficiency in all aspects of the diving program including deep sea, scuba, and hard hat diving, operation of mixed gas and closed circuit diving systems, and hyperbaric chamber facility qualification. He also became qualified as a saturation diver upon graduation from the Saturation Diving Medical Officer Course at the Navy Experimental Diving Unit, Panama City, FL. "This type of diving allows divers to stay at unusual depths for longer periods of time," explains

*Dr. Arthur (above) examines a patient before treating him for the bends and, with his diving staff (right), "mans the side" to monitor patient's progress inside the chamber.*

Dr. Arthur, "and is usually used for submarine escapes, where people are trapped in a sub for days at a time."

"Our mission is to maintain medical readiness for the diving line, giving advice on various safety aspects of the job which will aid in the prevention of diving accidents." In the course of his work, he encounters a number of duties including performing diving physicals, treating patients in the hyperbaric (recompression) chamber, and supervising various types of dives. Dr. Arthur is also certified as a Submarine Medical/Radiation Health Officer with the responsibility of treating submarine squadrons in port through normal sick call and also monitoring radiation programs and performing radiation physicals.

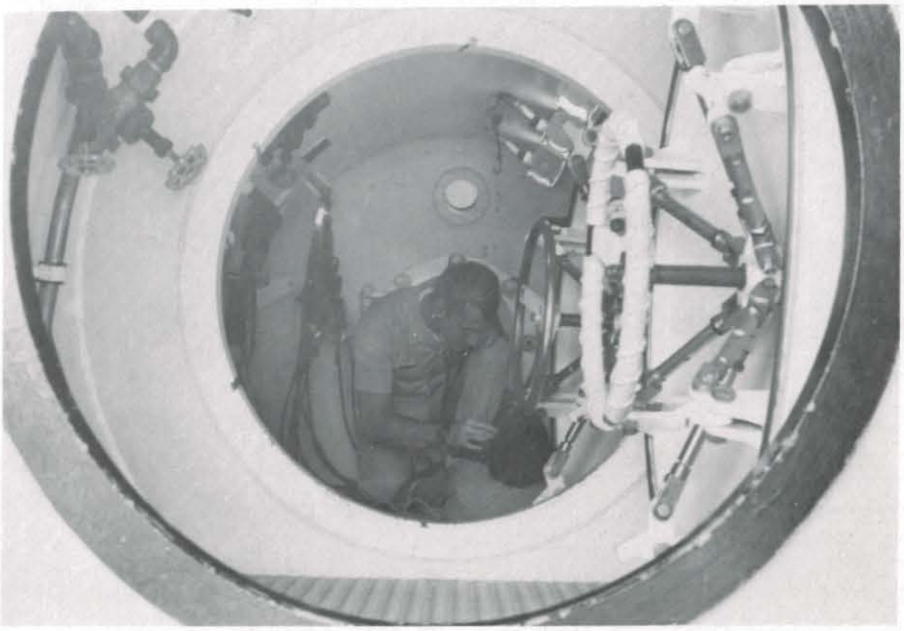
Dr. Arthur has also challenged the sky, becoming a Naval Flight Surgeon after earning his wings from the Naval Aerospace Medical Institute at Pensacola, FL. In 1981 he was the first Navy physician to become a "free-fall qualified jump master" after completing a course at the Naval Air Technical Training Center at Lakehurst, NJ.

As a Naval Flight Surgeon, Dr. Arthur's main responsibility is caring for patients on flight status. He also coordinates and arranges medevacs and aids in the training of medevac corpsmen. "Our main job is actually preventive medicine," he says. "We enlighten squadron personnel on medical aspects of their job and the specific problems related to being in the air."

Dr. Arthur also specializes in cold weather survival and medicine. He trained with Marines at the Marine Corps Mountain Warfare Training Center in Bridgeport, CA, and has published a number of articles on cold weather survival and hypothermia. Also to his credit are articles relating to decompression sickness, shipboard radiation casualties, and computer-assisted diagnosis programs for acute abdominal pain. He received the Navy Achievement Medal for his work pertaining to computer diagnosis of patients aboard submarines from the Naval Submarine Medical Research Laboratory at Groton.

Dr. Arthur holds a B.A. degree with majors in biology, chemistry, and accounting from Northeastern University Undergraduate College of Liberal Arts in Boston, MA. He has a master's degree in Human Genetics from Northeastern University Graduate School, Boston. Dr. Arthur also attended Medical School at the College of Medicine and Dentistry, Newark, NJ, and did his internship at NNMC Bethesda, MD.

—Story and photos by HM2 Mary Drake □



*Patient's vital signs are assessed following treatment in the chamber.*

# So You're Going Aboard Ship

LCDR M. David Posner, MC, USNR
LT Kenneth R. Harman, MC, USNR
LT David A. Munson, NC, USN

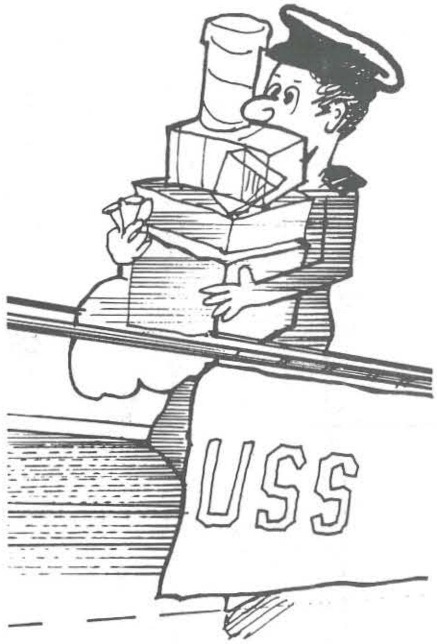
In 1981 several brave souls from NRMC Okinawa participated in Operation Team Spirit. Inasmuch as none of us had been aboard ship, we approached this prospect with the experience and confidence as we might have had we been assigned to the *Mayflower*.

We did, however, have one essential ingredient—enthusiasm. We were eager learners. Even though members of support services often have approached floats with trepidation, we were in agreement afterward that our seagoing experience was one of the most memorable and gratifying in our lives. Three of us pooled our thoughts in hopes that others might share our enjoyment and learn from our individual experiences.

## What to Bring

Long underwear goes a long way in cold weather. Finding the garments might be a problem if you are based at a warm weather port. I borrowed a friend's. Don't forget such items as wool socks, towels, sandals (for the shower), and a laundry marker pen. A watchcap will prove its utility on deck in no time. Take at least one pair of warm gloves. Khaki uniforms, cotton are usually worn on board; three pairs will probably suffice. Dress blues are always a good bet. If you want to be on deck for certain ceremonies coming into port, you will need them. Furthermore, most friendly country citizens will go out of their way to assist a touring American naval officer in dress blues. A jacket, shirt, and tie may come in handy if you are invited to a function where a military uniform is not appropriate, even though the affair may be for military personnel.

Bring a photo of your girl or wife. Something as mundane as a pic does a lot when it occurs to you that you are far from home and probably couldn't tell anybody where you are even if the info wasn't classified. Books—mystery type or any light reading—will prove a blessing when nothing is going on or when you are waiting to fall asleep. It replaces walking at midnight and Burger King. A cassette recorder, where allowed, is a great way to communicate with the folks back home. Just the background noise is a real experience for someone to hear. Also, bring some of your favorite music tapes. Take an address book for those letters you never got around to writing. For shipboard PT, bring sneakers and/or running shoes, a warmup suit, and shorts. Bring a hardback, blank book to keep a diary of your experiences. You'll be amazed how interesting it will later prove, and you'll marvel at how much you will otherwise forget as each day seems to merge with the next. Get about 100 calling cards. They are good to have anyway and are a must aboard ship. Give them to anybody and everybody whose acquaintance you have made. You'll be surprised how they will pay off. You can obtain them through most stationery shops.



Art by Moses Jackson

Bring your health record and shot card and check with the immuniza-

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Dr. Posner is stationed at NRMC Long Beach, CA 90822. Dr. Harman is in charge of physical fitness programs for the medical staff of NRMC Okinawa, Japan, FPO Seattle 98778. LT Munson is on the nursing staff of the same facility.

tion clinic as to what shots you will need. Photocopy your orders and keep at least one copy on your person and another copy in a safe place. If endorsements or other authorizing signatures are on the back, make a two-sided photocopy.

Take along your pay record. Hit Disbursing at least 1 week in advance and stay on their backs until they have brought the record up to date. Supposedly, if you have check-to-bank, you don't need your pay record—supposedly. But if you have it with you, you can collect the cash and use it when payday rolls around. Don't let anyone tell you that they'll "have your pay record on board." In your spare time, I'll tell you a bedtime horror story.

Bring camera equipment. Color film is usually easy to purchase but don't count on it. Take several rolls of daylight color, preferably 36 frames per roll. About 12 rolls will cover a month float. Black-and-white should be purchased ashore before leaving. Flash is a "must." Buy a blue tungsten filter, a fluorescent daylight (FD) filter, or an 80A filter for shipboard color photography under the omnipresent fluorescent lights. If shooting topside, the glare is so intense that you will routinely use a neutral density filter. Purchase at least ND 4. (I used an ND 8 most of the time). UV is really a help with the haze. The most useful lens will prove to be a 28 mm wide angle.

A Marine duffel cost $9.50 in 1981. It is priceless when you start fitting what you brought and what you bought—back into what you got. Also, the duffel is great for shore travel. A ditty bag ("Dopp kit") for all toiletries is a must with common toilet facilities.

The ship's medical department will have a wide range of over-the-counter and controlled medications. Dramamine is good for seasickness. Actifed or similar med is great for colds and dampness-induced sinusitis. Aspirin is good for what ails you. Kaopectate may also prove to be a blessing.

## Before You Go

Prior to leaving, you will, in all likelihood, receive a pre-sail briefing. This is especially important as it will delineate what some of your responsibilities are before the sail and also what you will be doing while aboard ship. Significant details include the following: where to meet for the briefing; when the briefing is to occur; and most important, directions to the naval base from which you will be departing. If at all possible, try out the directions so that you have an idea of the route, and by all means, allow sufficient time for morning rush-hour traffic.

## Getting Everything Together

Learn who your contact person is at the base and jot down his telephone numbers. These numbers will be helpful before your departure and for your return. By all means, obtain the number for the Port Services Office. This office will be able to let your spouse or friends know when your ship is due to arrive in port.

Be sure to find out the time and place that your ship will be getting under way. Occasionally, the ships are not pierside and require you to take liberty launches. If your ship is moored in the harbor, obtain the liberty launch schedule from Port Services.

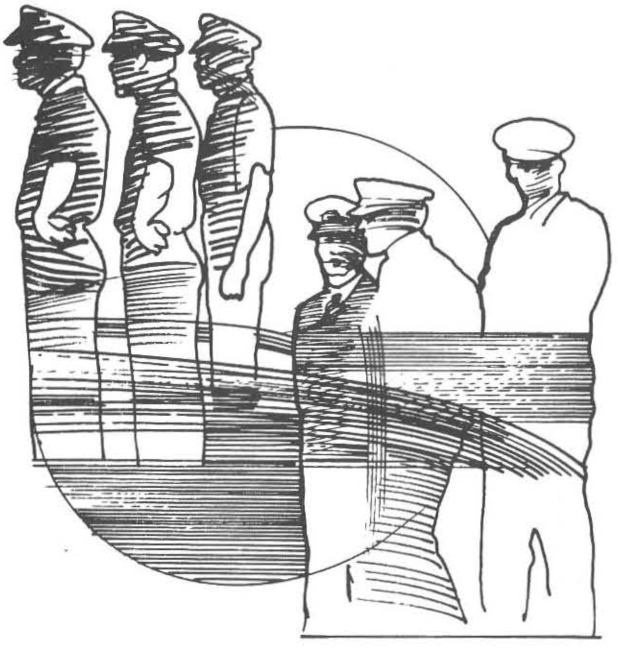
During your briefing with your contact you should be given an approximate date of return. Let your supervisor know this date, and if at all possible, try to arrange for 2 days off after your return. Invariably, there will be a number of things to attend to on your return, and having these days off will insure a smooth transition back to your professional responsibilities.

While aboard ship you may have an opportunity to call home via the MARS system. This is a short-wave radio communications system much like ham operators use in the United States. It is a means to let your friends and loved ones know that all is well and for you to find out the same. All ships, however, do not have MARS facilities; furthermore, the mission may be of such a nature so as to prohibit its use. There are some restrictions while speaking on this network; that is, you cannot give your present location, where you have been, or where you are bound. Therefore, your conversations must be confined to generalities, but it does provide you with a chance to speak to your family. Calls can be placed to Okinawa, mainland Japan, and the United States. Usually calls are placed by the MARS staff in the evenings. The Communications Officer on your ship would have information as to the operating hours for the MARS network.

An additional factor to consider after getting aboard is to check with the CATF personnel office. They can provide you with the ship's schedule, anticipated port calls, etc. Also, obtain at least two copies of the orders which brought you to the ship. You will be required to have these in your possession at all times while on liberty. The administrative office will provide you with a boarding pass for your ship. Both your orders and boarding pass are required items.

While at sea, payday occurs on the same schedule as ashore. If you are single or unaccompanied, it is advisable to bring your pay record along with you. Usually the staff at Disbursing will give this to you as long as you can produce a copy of your orders directing you to Temporary Additional Duty at Sea. If you have Sure-Pay or check-to-bank, then the only thing required is your checkbook. Personal checks can be cashed at the Disbursing Office aboard ship. For additional ease in cashing checks, it is advisable to bring along travelers checks. These would be used if you were off the ship and wanted to cash a travelers check on the economy to convert cash to the local currency. One additional item of convenience is the credit card. Visa, Master Charge, and American Express seem to be the most common. They can be used in many of the shops, restaurants, and hotels in the Orient and elsewhere.

Try to converse with other people who have been to the ports and countries where you will be going. Often, they will recommend places to visit, restaurants, and merchants, and may have business cards presented in English and in the native language. This is especially helpful as you can show a taxicab driver the card and not have to drive around needlessly.



## Going Aboard

One factor which will set the tone for your experience aboard ship is first impressions—yours and theirs. To insure your success, report in the correct uniform of the day. You can find out the correct uniform from your CATF representative. Generally, reporting in your service dress blues is the safest avenue to pursue. The following items address how to embark on a U.S. Navy ship. For more detailed information, it would be advisable to consult the *Bluejacket's Manual.*

On larger vessels there are two brows (gangplanks, ramps, walkways). The brow closest to the bow is for officers only. The brow closest to the stern is for enlisted. If only one brow is present, it is for both officers and enlisted.

If in the company of senior officers, the junior officer walks aboard ship first. The remaining officers then proceed according to their rank.

As you walk up the ramp take notice of where the Ensign is located. (The Ensign is the U.S. Flag). You are required to salute the Ensign first. This can generally be done within the last 10 feet of the end of the brow. Just turn at about a 45-degree angle facing the Ensign and salute smartly. Continue up the brow and face the Officer of the Day. Raise your salute once again and state "Request Permission to Come Aboard, Sir." Permission is generally granted, but they may ask you to state your business. Use your imagination on this one.

When debarking the ship the reverse steps apply. Senior officers depart first followed by junior officers. Be sure that you are in the correct uniform of the day or appropriate civilian attire. If you are in uniform, render a salute to the Officer of the Day, stating, "Request Permission to go Ashore, Sir." As you step down the brow, remember to salute the Ensign. If in civilian clothes, then assume a position of attention in front of the Officer of the Day, and without saluting, state the same phrase, "Request Permission to go Ashore, Sir." As you walk down the brow, pause and look toward the Ensign without saluting. This is merely a sign of respect.

## Aboard

The Deck Officer will refer you to the liaison personnel who will show you around. If no one materializes, ask for the CDO (Command Duty Officer).

In all events, someone will probably show you to your stateroom first. They will give you a key and safe combination. Write down the *address* of your stateroom. What's an address?

All locations aboard ship have an address. A typical address might read: 01-108-1. The first number group refers to the level. Above the main deck the levels are 01, 02, 03, and so forth. Starting with the main deck and below, they are 1, 2, etc. The next group refers to the frame, starting from the very front of the ship. This number corresponds to latitude. So 108 is toward the rear of the ship relative to frame 53, which is more

forward. The last number refers to the position from the midline and corresponds to longitude. In the very center, the number corresponding would be "0." The farther the distance from the midline, the higher the number, with odd numbers referring to locales on the starboard side and with even numbers referring to locales on the port side.

After you get your stateroom assignment, find out who is responsible for stamping and endorsing your orders. It might be the Flag Secretary or some other senior officer aboard. Entrust your orders to no one else.

Next, take your pay record to Disbursing. They pay you like clockwork. Don't forget to pick up your pay record, your stamped and signed orders, and your health record upon your return.

The wardroom and lounge are the areas where the elite meet. Most likely, these areas are located adjacent to the Officers' Mess. The messing hours are strict. Don't be late; it would be preferable to miss the meal. It's considered a bad breach of courtesy to be late. If you must come late, request permission to be seated from the senior officer, if such a practice is in force. Sit at the proper table. There are different degrees of rank distinctions, depending on the ship. Check with fellow officers as to the existing seating protocol. Again, customs vary widely from ship to ship. If you make a mistake, don't bolt your food. Be cool. Sit somewhere else the next meal. It's not *that* bad.

For the MOD watch, Midrats (Midnight rations) are available. Midrats are designed by the enemy to make you so obese that you will take the ship down rather than vice versa. You can get hamburgers or cheeseburgers usually about midnight. Check the hours.

Most ships have a store, often a library, a gym, a chapel, a gedunk (store for stuff to rot your teeth), and a MARS station for calling loved ones. Jot down the addresses of these places. You'll bless us for suggesting this. Otherwise, you'll constantly be asking directions.

Laundry service varies in its details from ship to ship. This was the procedure on our ship. Regular laundry is done at least 2 days a week. The days are listed on the back of the stateroom door. Dry cleaning similarly is on schedule. With a marker pen, print (legibly) the first initial of your last name, followed by a hyphen, followed by the last four digits of your SSN. This goes on the inside of the back of shirt collars and in a similar position on the inside of the waistband of trousers. A mesh net laundry bag is used on all ships. You can usually purchase this, together with a smaller sock bag, at the ship's store. A large metal safety pin is then used to skewer the whole business, with sock bag inside the larger bag. Don't forget to throw in your laundry list (make a copy for yourself). The result should be secure enough so that if it were all thrown into a vat, it would stay together—because that's exactly what is going to happen to it all.

A movie or two is shown usually at about 2000 hours. Popcorn and wisecracks are commonly served. Often the mess or the wardroom is used. On larger ships a closed-circuit TV is used for news and announcements of general interest. News update sheets arrive through communications. Check and get the hard copy.

Locate and make use of the Special Services Officer. He can tell you what tours and events will be available in port. Some tours have to be arranged several days to a week in advance. You might miss out if you don't inquire early.

After settling in, the next order of business should be a courtesy call to the XO (Executive Officer). Find out where he is located and schedule an appointment to see him. It is important to let him know that you have come aboard and how long you will be there. Also, let the XO know what your plans are, how you think you can best achieve your mission, and ask him for help and advice.

If you get lost, which is surprisingly easy on the larger ships, ask for directions. If you are aboard long enough, try to see everything including:

- Bridge
- Operations/Meteorology
- Engine Room
- Holds
- Anchor Mechanism
- Medical and Dental Departments
- CIC—Combat Information Central

There are a variety of sounds, signals, and bells that are a part of shipboard living. One of the most significant are the sounds of the ship's bells which denote the time. The following is a guideline for how the concept of Eight Bells and All's Well works.

2400—8 bells
0030—1 bell
0100—2 bells
0130—3 bells
0200—4 bells
0230—5 bells
0300—6 bells
0330—7 bells
0400—8 bells

The phrase Eight Bells and All's Well links closely with the 4-hour watch system wherein the off-going watch could let the on-coming watch know that all was truly well. Within a very short time, the landlubber truly becomes a "salt" once this system is understood.

Another sound that occurs aboard ship is a general collision alarm or general quarters. This is a very distinctive sound and once acquainted with it, you will know when to report to your battle station. For medical personnel, your battle station is usually in Sick Bay.

You will find that the more open you are with the crew and the more willing you are to help with whatever work is to be done, the better you will enjoy your shipboard duty.

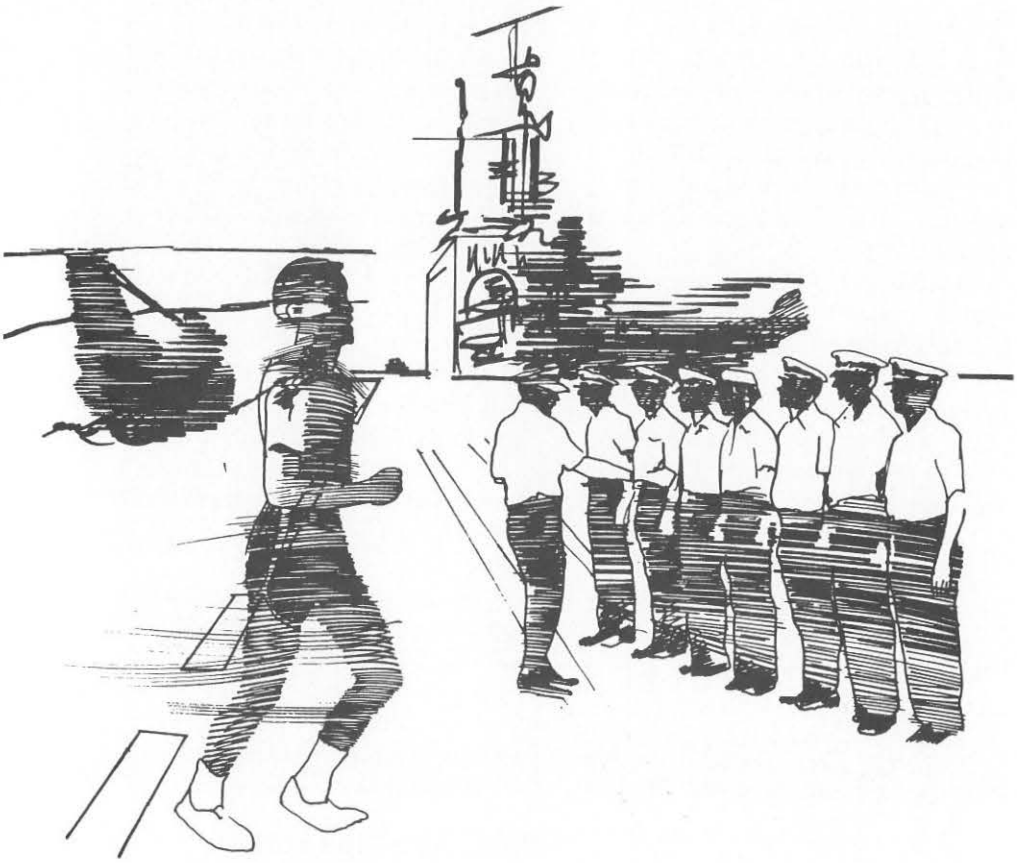
## The Line

Shipboard duty is one of the few times you will see line officers in their environment. As a general rule, they are just as professional and specialized in their field as we are in the medical field. Most of them enjoy talking about what they do and are eager to answer questions. As a physician, you will generally have their trust and respect, and if you show a genuine interest in learning about "the real Navy," you will be welcome almost anywhere you go. Don't be afraid to ask questions. If you are in the wrong place or talking at the wrong time, someone will let you know. If things are very busy, try to stay out of the way. If you go on the Bridge, be sure and wear your cover. The large swivel chairs are for the Captain and the Executive Officer. Stay out of them. Avoid standing in the Captain's Corner and if things appear really busy you may want to come talk at another time.

While aboard you will meet many people and make new friends. Be sure and write down their names and addresses. It would be very appropriate to write a letter to the Captain via the Executive Officer thanking them for their hospitality.

## Pitch, Yaw, and Roll—A New Song

Hopefully, you will be an old salt before going aboard your first Navy vessel. If not, then you may be at risk for developing that dreaded disease—seasickness. If you already know that you are prone to motion sickness, it might be a good idea to begin taking some dramamine or meclizine before going aboard. Most people agree that starting the medication 24 hours before embarking is the only way to achieve the desired effect. Find out what kind of ship you will be on. In general, the bigger the ship, the less the motion. Some vessels designed for amphibious operations are shallow draft or "flat bottom." These ships perform a variety of movements besides forward motion guaranteed to delight any roller coaster aficionado should the sea swells become large. The traditional "V"-hulled ships are



much less prone to "pitch, yaw, and roll."

At the first indication of seasickness, here are a couple of pointers:

- Try and stay as close to the ship's center of gravity as possible. Up in the crow's-nest, far forward, and far aft are places to avoid because the arc of motion is longer.
- Don't avoid food. Eat something such as crackers and try and keep something in your stomach. Avoid large amounts of liquids and fatty foods.
- If you must, go topside and look at the horizon (preferably leeward just in case).

## Going Topside

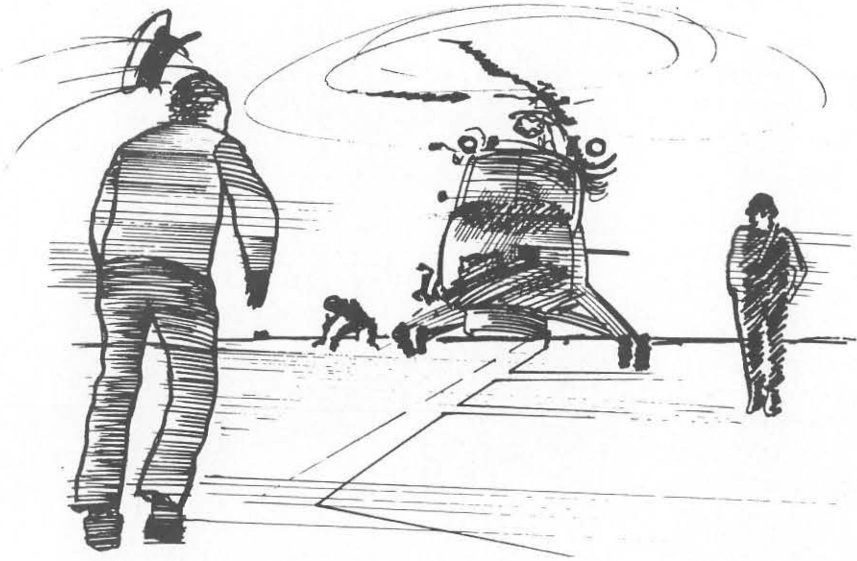
There may be many opportunities to go on deck. If your ship is large enough you may be able to do some jogging. It's a good idea to go topside with a buddy. If your ship has flight operations, you should determine if the ship is at flight quarters before going on deck. When you are topside during flight operations, you should not be covered. Jet exhaust winds might blow your cover into the intake of a jet engine. This not only is potentially dangerous but will not please the flight crew.

While topside, you may look over the rail and muse on how easy it is to fall over, and if you ponder whether or not they would find you if you did, the answer is—it is and they won't. Furthermore, the physicist Bernoulli has insured that you'll be sucked into the screws and provide marine wildlife with appetizer tidbits.

## Touring

It's probably best to have crewmembers show you around. Ask to see various ship departments and areas. When walking around by yourself avoid:

- Anything that says keep out.
- Admiral's passageways and ladders.



- Marine berthing areas when they are full of Marines. You will notice that the Marine berthing areas are something akin to packed sardine cans and there is little or no room for visitors stumbling in and out.

## Liberty Call, Liberty Call

This is usually the highlight of a period at sea. Several days before arriving in port, information is broadcast over closed-circuit TV or radio about the upcoming port of call. Points of interest are mentioned as well as the availability of tours. Special Services maintains a file on ports of call and they also can be a source of information.

As far as the actual arrival in port, you will find that several things occur. If the ship cannot be pierside it will have to anchor out in the harbor. Either way, you will know that liberty soon will commence when you hear the announcement, "Set the Special Sea and Anchor Detail." There will probably be special uniform requirements for appearing on deck so watch for announcements in the Plan of the Day (the ship's newspaper). It will also tell you what the liberty uniform is for that port. In some cases, civilian clothing may be required.

There will be a set schedule for the liberty launches if your ship is out in the harbor. Generally, there are separate launches for officers and enlisted. They usually depart the ship on the hour and return on the half-hour. However, check with either the Plan of the Day or the Officer of the Deck.

## On Foreign Places

After all your discussions about what you're going to do, take some time and decide who you're going to do it with. It is strongly advisable to go along with at least one other person. Any more than four is a bit cumbersome and, besides, you all can't get into a cab.

Before you get deeply entrenched in shopping or sightseeing, obtain some local currency. This can be done before leaving the ship or usually at one of the local banks or moneychangers. A good suggestion is to sightsee the first day and then go back on subsequent days to shop if you have time. If you plan to make some Far East purchases, try bartering/bargaining. You might be able to save something off the purchase price—nothing ventured, nothing gained.

As mentioned previously, Special Services aboard ship can suggest places to go, etc., and for that same reason, it is a good idea to check with Special Services facilities ashore. They may be able to inform you about other opportunities. Another term for these opportunities are "Boondoggles." Just ask around.

After these experiences comes the time to bid farewell. It is very important to know the time your ship will be getting underway. Find out when the last liberty launch leaves and try to be on the one before that. Otherwise, you might find yourself groping for room, as everyone may be on the last launch!

A few more points in closing. When traveling from one place to another in a foreign country, have the doorman give directions to the cab driver. They usually speak the language better than we do. If possible, have someone write it on a slip of paper. If you happen to stay at a hotel, show the cab driver a book of matches from the hotel or, even better, get a business card from the hotel receptionist and tell him or her what you're going to use it for. This can really cut down on cab fares and frustration. While staying at a hotel leave your room key with the front desk. Most key fobs do not have an address on them and losing one could be a real disaster.

## Home at Last

If possible, give your family or friends an approximate date of return. They can find out the specifics by calling the Port Services Office. Depending on your purchases, you might want to suggest that someone accompany your friend or spouse for the arrival of the ship just in case your purchases exceed the size of your auto's trunk. Besides, friends can also take photos of the reunion. □

# NNMC Command Revised

*As of 1 Sept 1982 the status of the National Naval Medical Center (NNMC), Bethesda, MD, changed. The command and management functions of the naval hospital were separated from the broader responsibilities of the commanding officer of the regional medical center. Now called the Naval Medical Command, National Capital Region, the Command continues to have a CO of flag rank. He is supported by a chief of staff and directors of logistics, resource management, operational planning, and consolidated civilian personnel.*

*Command and management of the hospital is now the responsibility of its commanding officer. He is supported by an executive officer, an administrative officer, and management leaders of five major departments—hospital administration, nursing, medical specialties, surgical specialties, and ancillary services. The commanding officer reports to the Regional Commander, as do the commanding officers of the other components of the region: Naval Hospital, Patuxent River; Naval Regional Medical Clinic, Annapolis; Naval Regional Medical Clinic, Quantico. Thirteen tenant commands at Bethesda receive host support from the Regional Command.*

*The reorganization provides the management structure to insure that regional problems and tasks such as resource planning and utilization, records, and documentation are pursued in a timely manner. It also allows hospital operations to be focused fully on patient care.*

*The new plan creates clear lines of authority and accountability that will improve quality assurance, organizational efficiency, and overall responsiveness to the needs of both the patient population and the Navy/ Marine Corps command structure.*

*The following is a speech given by VADM J. William Cox, MC, Surgeon General of the Navy, at the commissioning ceremony of the Naval Hospital, Bethesda, on 1 Sept 1982.*

Today is a signal day in the long history of the Medical Department. Today we embark on a course which I believe will lead to enhanced effectiveness of our health care system. Today we realign ourselves to better serve our patients, our Navy/ Marine Corps team, and our Nation.

But today didn't just happen. First, we had to recognize the need for change; second, we had to decide how and what to change. All this is not yet accomplished. Several decisions are yet to be made. But change we will, and change for the better.

But why change? What needs change? To answer that question we must look to the past. During the past decade we reverted to a peacetime health care system. During this period manpower resources declined. We shouldered many new responsibilities and tasks. The technology of medicine took a giant forward leap. Our retired personnel and their dependents grew from about 360 thousand to over 1 million. Medical regionalization brought hundreds of outpatient clinics under our management. Expanded and new programs such as occupational health and drug-testing demanded our attention. At the same time we were faced with a change in society and its attitudes. We eliminated the draft as a ready source of physicians. Ever-increasing civilian influences developed in the form of health systems agencies, quality assurance/ risk management criteria, and accreditation and regulatory agencies, to cite only a few.

We slowly drifted toward a more civilian approach to management. We formed committees for everything. In fact, the revised accreditation standards required them. We started to manage more by consensus than military authority, and we preoccupied ourselves with peacetime health care operations and criteria. Readiness training for our wartime mission was all but forgotten.

In the late 70's we realized what had happened. We initiated programs to correct our deficiencies in preparedness. We programmed the hardware—hospital ships, deployable medical facilities, and equipment. We started training programs to prepare our personnel for their military contingency mission. And we began to emphasize once again good military order and discipline. These initiatives are readily apparent in the goals and objectives communicated to you not long after I took office. The response has been excellent and the change is already apparent. Much has been done. More remains to be done.

But what does this have to do with Bethesda? Well, certainly technology has had a profound inpact on the National Naval Medical Center. Just a quick tour around this building will tell you this. Certainly, medical regionalization has had an impact. Today, this command is responsible for health care in Annapolis, Quantico, Patuxent River and, through a network of outpatient clinics, throughout the Capital area. You also have been tasked to support a university, the Health Sciences Education and Training Command, the Naval Medical Research Command, and numerous other activities on your own compound. Moreover, the explosion in our retired and dependent population has had a major impact on your health care delivery system. And yes, NNMC too became preoccupied with its peacetime role over the years.

The result of all these additional responsibilities put a tremendous strain on the management of the Medical Center. The management staff was inundated with regional programs, base support functions, and consumer demands. The commanding officer had over 25 department heads, commanding officers, and other officials reporting directly to him. As a result, management of the Bethesda hospital component of NNMC did not receive all the attention it required.

Today we correct this. The broad responsibilities of the Medical Center will be left in the capable hands of RADM Crews [Quintous E., Jr.] and a most able administrative staff. The management of the region and the support to the tenant commands will receive the attention they deserve. By establishing the Naval Hospital as a separate component command, with CAPT Quinn [James J.] as its commanding officer, he can focus his attention on patient care management and insure that this hospital maintains its reputation for excellence in the future.

To assist him in the process, the new command is structured to provide clear lines of authority and accountability that I am confident will improve our efficiency, military effectiveness, responsiveness to the needs of the Navy and our patients, and maintain the high standards of care.

However, organizational restructuring is only part of the renewal. All of you who are a part of the Medical Center and the Naval Hospital, Bethesda, will play a crucial role in the success of this endeavor. Your attitudes, dedication, support, and leadership will determine our final success. I challenge each of you to make changes that will permit this new organization to provide the best health care possible in an efficient and cost-effective manner. Dedicate yourselves to your profession, your command, and your Navy. Together, you can make this a model for the rest of the Medical Department. ☐

## Scholar's Scuttlebutt

### AFHPSP

Many changes are expected for the Armed Forces Health Professions Scholarship Program (AFHPSP) in Fiscal Year 1983. Scholars' Scuttlebutt will be used to communicate these changes to Navy students as well as correspondence from the Naval Health Sciences Education and Training Command (HSETC). There will be format changes to your ACDUTRA orders and attached instructions and policy adjustments affecting reimbursements, ACDUTRA procedures, and followup requirements on travel orders. In an effort to serve you better and to be an effective organization, HSETC (Code 14) is making internal changes to make better use of Navy resources and minimize student problems.

### Transitional Programs

Transitional programs (previously termed flexible or basic medical, surgical in the Navy) were discussed at the Surgeon General's Specialties Advisory Conference and Committee (SAC) Meeting 13-17 Sept 1982 in Washington, DC. These programs recently were approved by the Accreditation Council on Graduate Medical Education (ACGME).

Transitional programs are designed for physicians who desire a year of experience in several disciplines before entering specialty training.

If the Navy decides that these programs are appropriate and can be incorporated into the present training system, they will probably be scheduled to begin no later than 1 July 1984.

Since the programs are very new, the specific curricula uncertain, and the guidelines by the ACGME very general, more information is needed to finalize quality transitional years. If approved, the program would be offered only at Naval Hospital, Bethesda, MD, NRMC Portsmouth, VA, Naval Hospital, San Diego, CA, and NRMC Oakland, CA. Scholarship students would be notified in the internship application package mailed in the spring of 1983.

General guidelines for transitional year training can be found on page 12 of the 1982-1983 Directory of Residency Training Programs published by the American Medical Association.

### Drug Abuse

Drug abuse is a major concern in the Navy, constitutes a serious discipline problem, and has a detrimental effect on combat readiness. Your leadership efforts as future naval officers will play a major role in eliminating the illegal use of drugs.

Each prospective officer and enlisted should clearly understand that using any illicit drug while serving in the Navy will not be tolerated and could result in a trial by court-martial or administrative separation under other than honorable conditions.

As physicians you will be challenged and obligated to take a firm leadership role in combating and controlling drug use in the Navy. Your effective leadership, firm discipline, and peer group pressure coupled with your medical training can help put this problem behind us. ☐

# Lamont Pugh: The Medical Department's Elder Statesman

*Dr. Lamont Pugh is a distinguished 87-year-old Virginian. He is now retired and lives in a quiet Washington suburb. Age has not diminished his memory of a military career that saw him as a "horse Marine" in Cuba during World War I and Surgeon General of the Navy 34 years later.*

*The images in between remain vivid—duty aboard the battleship* California *in the twenties, life in Panama with the Special Service Squadron, and the landing of the Marines in Nicaragua in the thirties.*

*As Chief of Surgery at Pearl Harbor, he treated the casualties of that "Day of Infamy" and the wounded from the Battle of Midway and other Pacific campaigns. Later in the war Dr. Pugh was Chief of Surgery at San Diego. When he left there to become Commanding Officer of the U.S. Naval Medical School at Bethesda in 1944, San Diego, with a patient population of 12,008, had the distinction of being the largest hospital in the world.*

*In 1951, when Dr. Pugh become the 21st Surgeon General of the Navy, the United States was again at war, this time to save South Korea. During that conflict he inspected front-line aid stations and other medical facilities, becoming the first Navy Surgeon General to tour an active combat theater.*

*Following his 4-year term he became Inspector General of the Medical Department and then Commanding Officer of NNMC Bethesda in 1955. He retired from active service a year later.*

*With just the hint of a Virginia drawl, Dr. Pugh speaks of the people he has known, some as patients, others as intimate friends and shipmates—Richard E. Byrd, a Reserve lieutenant who signed him into his first duty station at the Chelsea Naval Hospital in 1923; Fleet Admiral Chester Nimitz; Franklin Roosevelt, whom Pugh once treated for food poisoning; Eleanor Roosevelt; Secretary of Defense James Forrestal; Senator and later Vice President Alben Barkley; and President Harry Truman.*

U.S. Navy Medicine *recently talked with RADM Pugh, the oldest retired Navy Surgeon General and the Medical Department's elder stateman, about the way it was. The doctor made it a memorable occasion.*

**USNM: During your early career you were involved in the Second Nicaragua Campaign. What was that all about?**

**RADM Pugh:** I was aboard the *Rochester*. We used to go up to Corinto, Nicaragua, from Panama because we had Marines there. There was a fracas going on caused by Sandino, a rebel who tried to overthrow the government. We were there to protect American interests. The Special Service Squadron, of which I was a member, was called the "Banana Fleet" because it always seemed to be protecting the interests of the United Fruit Company.

I remember we had quite an earthquake while I was there in 1930. This quake shook Managua so badly it leveled the jail, turned out all the prisoners, and killed the Navy doctor who was holding sick call there at the time. As far as I know, they never did round up all the prisoners.

**What was your next assignment?**

I was assigned to the Naval Hospital at Annapolis and spent exactly 3 years there from 1931 to 1934. I then went to Guam. Getting back to the States after that tour in 1937 was quite an experience for me and my wife and son. I wanted to come back via Europe. In order to do that the Commanding Officer of the Pacific Fleet had to certify that no space was available for me aboard a Navy ship back to the west coast. Admiral Nimitz was then Chief of Naval Operations. We had been shipmates aboard the *California*. He knew I wanted to come back through Europe. Well, I got my wish going home aboard the SS *President Hayes* of the Dollar Line via Singapore, Penang, Colombo, Bombay, then after traversing the Indian Ocean, into the Red Sea. We got off the ship and went overland to Cairo, then by train to Alexandria, where we caught a ship to Naples. I wanted to go to Vienna to get some idea what kind of medicine they taught there. I found nothing that I could not have learned at the Mayo Clinic. We made a side trip to Hungary, then up through Czechoslovakia, and into Germany before heading home.

**You were assigned to Philadelphia.**

I spent the next 3 years at the Naval Hospital there but by 1940 it was obvious to many of us that we were soon going to get mixed up in World War II. We began making preparations by building what were called Mobile Base Hospitals. The first of these was to be built at Guantanamo Bay. All the material has to be loaded aboard ship in New York. I helped collect it all and went down to Cuba to help set it up.

After that I came back to the Naval Hospital in Washington on 23rd Street to become the Assistant Chief of Surgery and I remained there until Pearl Harbor.

**You eventually went to Pearl Harbor?**

Yes, I was sent there immediately after the attack and became Chief of Surgery. Some patients were sent to Mare Island and other hospitals on the west coast. I treated many of the injured—a lot with water blast injuries. Air blast injuries caused by shell explosions and the like generally create chest and lung injuries. Water blast ruptures the intestines. I operated on no less than 40 people with this kind of injury.

**How were they treated?**

Most of the injuries caused by water blast were large intestine perforations in the areas of the ileocecum, the hepatic flexure, or the transverse colon.

In one case, the perforation was in the small bowel. It was very difficult to re-establish continuity of the bowel at that point because we were dealing with one segment of bowel outside the peritoneal cavity and the other part inside. I resorted to using a device I had heard about at the Naval Medical School way back in 1926.

**What was that?**

Dr. Lucius Johnson taught a refresher course in surgery there. In one of our classes he held up a little device and asked if anyone knew what it was. I spoke up and said it was a Murphy button. "That's right," he said. Dr. Johnson then handed it to someone else and said, "Let me see you take it apart." The student couldn't separate the two parts. Nobody in the class knew how to do it. He then showed us how to unscrew it. To use it, you put one part in the distal segment of the intestine and the other part in the proximal segment, and then push them together until there's a click. You would then have rejoined the intestine.

The man on whom I was operating had either been on the *Yorktown* when it sank or on a destroyer nearby. Anyway, I remembered that day back in 1926 when Dr. Johnson told the class that the Murphy button might someday prove to be a lifesaver. He looked straight at me when he said, "Don't forget that." I didn't and I'm sure it saved the life of that sailor.

**How did you come to the Bureau as Deputy Chief?**

I had been CO of the U.S. Naval Medical School at Bethesda and also Chief of Surgery. While I was there, Cliff Swanson [RADM Clifford A.] became Surgeon General and I went to BUMED as Deputy Chief until Harry Truman appointed me Surgeon General in 1951.

**In your book* you mention that you once treated President Roosevelt.**

The President had attended a barbecue in Staunton, VA, and ate some pork that made him sick. He got looking about as green as an olive. McIntire [Ross T., Surgeon General of the Navy, 1938-1946] thought he needed a blood transfusion so I went over to the White House and gave him three transfusions and he got better.

**I understand you knew Admiral Richard Byrd. Were you two close friends?**

I became a friend of his when I was appointed by Admiral Stitt [RADM Edward R., Surgeon General of the Navy, 1920-1928] to accompany him to the Antarctic on his first trip. The backers of that expedition thought Byrd should take a doctor along who had previous experience practicing medicine in the cold. Byrd's brother, Harry Byrd, Sr., then Governor of Virginia, knew I wanted to go and I could have gone as an ordinary member of the crew. Anyway, I didn't go. A private physician was chosen instead.

**Alben Barkley [Senator from Kentucky and Truman's Vice President] was another friend of yours?**

Oh yes, dear Alben. Old Alben could tell some darn good stories. I'd go in to see him in the morning. He had some cellulitis in his leg. I'd say, "Senator, how are you?" "Well," he'd reply, "I guess I can't complain." Then he would tell me about a constituent down in Kentucky he always called on when he went back home, a certain Miss Jones. "How are you feeling, Miss Jones?," he would inquire. "Alben, I guess I can't complain. I'm gettin' on in years now. I'm now 98 and I'm losin' all my teeth. I've lost 'em all now down to where I've only got two left. But Alben, thank God they hit."

**What do you remember about President Truman?**

He was a good man for the job at the time. When Roosevelt died I thought that was going to be terrible. There was to be a conference coming up at

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*Pugh L: *Navy Surgeon.* Philadelphia, JP Lippincott Co, 1959.

Potsdam and he had to go confer with Churchill and Stalin. Everyone thought Harry would be at a loss to deal with these fellows. But, hell, he did all right. No one found any fault with the way he conducted himself.

**After the war there was talk of making a unified military medical service. What role did you play in that controversy?**

Mr. Forrestal [James], who was Secretary of the Navy, was strongly against unification. About this time Mr. Truman decided to create the Department of Defense and make Forrestal its first Secretary. Well, that's the last we heard of a unified medical service or the pink uniforms. You see, they used to talk about putting them all in the same pink uniform.

**Weren't you the first Surgeon General to visit a combat theater?**

As far as I know that's true. I went to Korea several times. On one occasion we were traveling by helicopter from the Marine base at what was called Bunker Hill to see the senior Army commander in Korea. The damn thing conked out and we set

Photos courtesy L. Pugh

*CPL Pugh as a Marine in World War I*

*Surgeon General Pugh inspects the U.S. Naval Infirmary at Afragola, Italy in 1952 . . .*

*. . . and with company mascot during a visit to the First Marine Division in Korea the same year.*

down in a rice paddy behind enemy lines. Fortunately, another helicopter landed behind us and took us out before we were discovered.

**What changes did you see in the treatment of wounded in this war compared to World War II?**

We had two hospital ships for one thing and helicopters to bring out the wounded. Getting the injured into the hands of competent surgeons quickly made a big difference.

**What was your biggest challenge as Surgeon General?**

Getting and keeping enough Medical Corps personnel. I was never in favor of a school to train military doctors. I believed and still believe that civilian schools can do it better. When I was Surgeon General I would propose this question to a specific school. "How many extra medical students can you take?" They might say they couldn't take any; they were full. "We want you to train some doctors for the armed services. We will expand your teaching capacity to where you can take in more students," I would suggest. My contention was that if these medical schools—Vanderbilt, Tulane, Harvard, Stanford, University of Pennsylvania, University of Virginia —didn't have the facilities for training any more students, we would pay for the expansion of those facilities so they could train physicians for the military. Then, when the students graduated, they would be obligated to serve for 8 years. That's how I planned to get the doctors. However, none of this ever got as far as a congressional committee.

What Congress did do was to pass a doctor's draft law and drafted doctors. I considered this a little short of a disgrace to the medical profession to have to draft doctors to serve their own people.

**After you retired from the Navy you became resident physician at George Washington University. What have you done since then?**

For 10 years I was a resident physician here [Carl Vinson Hall] and many of the old-time residents still come to me. My phone even rings in the middle of the night. I just got a call a while ago from a resident who wants to consult me about something. I'll listen to what she has to say.

I'll tell you this. I've never charged any individual a cent in my life for any professional service I rendered. I was paid by the Navy. And I still don't charge—not many doctors can say that. —JKH

# Dr. Pugh Speaks His Mind

Photo by Editor

*Dr. Pugh today*

### FDR's Health

His main concern was to get us into World War II. As soon as the Japanese attacked Pearl Harbor and we got in, old Franklin spruced right up. He never looked better.

### The Atomic Bomb

Where did we drop it? Instead of on Wake Island or someplace where you wouldn't kill anything but some gooney birds, they took it to an undefended city and dropped it on Hiroshima. I think it's too bad we did that. Years later I went to eight conferences attended by medical heads of the NATO countries. Every time the subject of atomic warfare was brought up you could hear a pin drop in that auditorium. Not a single representative of another country said a word. The inference was "You started it."

### The U.N.

Korea was a United Nations fight. Why Vietnam wasn't, I simply don't know. The United Nations constitutes as fertile a soil for weeds to grow as for flowers to grow. I think it should have a lot more to say about what's going on in the Middle East. It's really hard to say what it has accomplished.

### The Uniformed Services University of the Health Sciences

I just don't know how the University stacks up against the class A medical schools of the country. I do know this. You can construct a wonderful building out of bricks and mortar, but who comprises the faculty determines whether you've got a good school.

# The General Surgeon's Role at an Isolated Billet

CDR Steven R. Shackford, MC, USN

General surgeons assigned to branch hospitals where there are no other surgical specialists are often confronted with clinical problems in orthopedic surgery, otolaryngology, urology, neurosurgery, dermatology, and plastic and reconstructive surgery. In preparing for this type of assignment, it is imperative that a general surgeon review his training in these subspecialties. However, this is a difficult task for the busy general surgeon. Therefore, it would be helpful to know, beforehand, to what extent his skills in these subspecialties might be required. In order to document such subspecialty emphasis, I analyzed my clinical experience as a general surgeon at the Branch Hospital, Adak, AK, from 1 April 1982 to 30 June 1982.

## Methods

Adak, an island in the Aleutian Chain, has a population of approximately 4,500 active duty personnel, dependents, and civilians. The Branch Hospital has 50 staff members which include 35 corps personnel, 6 nurses, a nurse anesthetist, a pharmacist, an administrator, 2 civilian employees, and 4 physicians (general medical officer, pediatrician, obstetrician, and general surgeon). The Outpatient Department (OPD) is busy; a total of 19,444 patients were treated during 1981. The hospital has a 15-bed ward and a nursery. Four hundred and fifty-four patients were admitted to the ward in 1981; most were obstetrical admissions. The closest referral center is the hospital at Elmendorf Air Force Base in Anchorage, AK, 1,200 miles away.

For 12 of the 13 weeks of my assignment I gathered daily the following data on each of the outpatients I treated: duty status (active duty, dependent, civilian), nature of primary complaint relative to subspecialty (i.e., low back pain was considered an orthopedic problem, recurrent tonsillitis was considered an ENT problem, etc.), and nature of treatment or disposition.

## Results

During this 12-week period I treated a total of 483 patients; 318 were seen for the first time and 165 were followup visits.

The most commonly encountered clinical problems were orthopedic in nature, comprising 42 percent of the total. General surgery problems were the next most common, making up 39 percent of the total. Patients with problems in the other surgical specialties made up less than 20 percent of the outpatient visits. (Table 1)

**Orthopedic problems.** Of the total 483 patients, 204 (42 percent) had orthopedic complaints. Most of these had problems which were injury related. Thirty (20 percent) presented with a complaint of knee pain. Ten of these had minor ligament injuries, 3 had meniscus injuries, and 17 had nonspecific chronic complaints. Of these 17, the diagnosis of chondroma lacia was made in 7. Twenty-four (16 percent) presented with a complaint of low back pain. None had evidence of intervertebral disc disease. Fourteen (12 percent) presented with ankle problems. Eleven of these had minor ligament injuries, two had fractures of the medical malleolus, and one had a fracture of the talus. Thirteen (8 percent) had hand or finger injuries. Seven of these had fractures of the phalanx, three of which were compound and required operative debridement and closure. There were three metatarsal fractures. Four had significant soft tissue injuries. Three had minor soft tissue injuries. Eight (6 percent) presented with wrist pain. One had a Colles fracture, one had a fracture of the triquetrum, and two had suspected navicular fractures. The other four had chronic wrist complaints; two had carpal tunnel syndrome and one, after workup, was believed to have rheumatoid arthritis. Fifty-nine had other complaints

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Dr. Shackford is Director of the Shock and Trauma Research Unit, is Chief of the Trauma Branch, Surgical Service, and is on the staff of the Peripheral Vascular Surgical Service at NRMC San Diego, CA 92134.

**TABLE 1. Chief Complaint by Surgical Specialty**

| Specialty | New Patients | Patients Seen in Followup | Total | Percent |
|---|---|---|---|---|
| Orthopedics | 148 | 56 | 204 | 42 |
| General Surgery | 101 | 90 | 191 | 39 |
| ENT | 16 | 1 | 17 | 4 |
| Urology | 10 | 4 | 14 | 3 |
| Neurosurgery | 8 | 1 | 9 | 2 |
| Other | 35 | 13 | 48 | 10 |
| Total | 318 | 165 | 483 | 100 |

**TABLE 2. Orthopedic Problems**

| Chief Complaint | New Patients | Percent |
|---|---|---|
| Knee Pain | 30 | 20 |
| Low Back Pain | 24 | 16 |
| Ankle Pain | 14 | 12 |
| Hand or Finger Pain | 13 | 8 |
| Wrist Pain | 8 | 6 |
| Other | 59 | 38 |
| Total | 148 | 100 |

**TABLE 3. General Surgery Problems**

| Chief Complaint | New Patients | Percent |
|---|---|---|
| Lump or Bump | 27 | 27 |
| Abdominal Pain | 18 | 18 |
| Hernia | 8 | 8 |
| Breast Mass | 5 | 5 |
| Other | 43 | 42 |
| Total | 101 | 100 |

which were felt to be orthopedic in nature. The most common of these were muscular aches and pains, usually due to soft tissue injuries.

I performed three orthopedic operative procedures, each consisting of debridement and closure of crush injuries of the hand.

Twenty-three (15 percent) had orthopedic problems which were sufficiently complex to merit medical evacuation for formal consultation. This group included seven urgent evacuations: three with meniscus injuries, three postoperative patients with comminuted compound fractures of the phalanges, and one with a displaced fracture of the medial malleolus. The balance of the patients evacuated for referral had chronic complaints and were evacuated because they needed an elective operation (i.e., operation for chronic patellar dislocation). They did not respond to initial treatment, or the diagnosis was tentative. (Table 2)

**General Surgery.** One hundred and ninety-one had general surgical complaints. Of the 101 new patients, twenty-seven (27 percent) had a skin or subcutaneous lesion which required excision or incision and drainage as an outpatient procedure. Eighteen (18 percent) presented with abdominal pain. Eleven of these had gastroenteritis, two had biliary colic, two had known inflammatory bowel disease, two had pancreatitis, and one appendicitis. Eight (8 percent) presented or were referred from sick call with a hernia. Three of these were found to have hernias. Five (5 percent) presented with a breast mass. Forty-three (42 percent) presented with other complaints. These were extremely varied, the most common being rectal bleeding which occurred in three.

Five (5 percent) were evacuated because they had general surgical problems which exceeded the Branch Hospital's capabilities for diagnosis or treatment. Two, who were stable, had rectal bleeding and needed appropriate contrast studies performed; one had diverticulosis coli, the other a Meckel's diverticulum. One had inflammatory bowel disease and was referred for further workup. One had inguinal adenopathy suspicious for malignancy and was subsequently found to have diffuse non-Hodgkin's lymphoma. One had a 10 percent body surface area burn, most of it third degree and requiring hydrotherapy, excision and grafting, and physical therapy.

I performed nine general surgical procedures. Three were major laparotomies (one cholecystectomy, one cholecystectomy and common duct exploration, one appendectomy). Two of the procedures were rectal cases, three were excisions of large subcutaneous masses, and one was a herniorrhaphy. Additionally, I assisted the obstetrician on three cesarean sections, three tubal ligations, and a total abdominal hysterectomy. (Table 3)

**Otolaryngology.** Sixteen were seen with complaints referable to the ear, nose, or throat. Most had chronic recurrent tonsillitis and were referred to the otolaryngologist at Elmendorf for elective tonsillectomy.

**Urology.** Ten were seen with urologic complaints. Three had scrotal masses (hydrocele, varicocele, epidermal inclusion cyst), three had prostatism, and three were seen for hematuria. One had acute pyelonephritis.

**Neurosurgery.** Eight presented with neurosurgical complaints. Four had a transient loss of consciousness after sustaining a head injury and were treated for concussion. Four had low back pain with a lumbar radiculopathy and were evacuated to a neurosurgical treatment center.

**Other.** Thirty-five were seen initially with complaints which could not readily be assigned to a surgical subspecialty. Twenty-five of these had verrucae. The other 10 had medical problems. Two of these were evacuated as emergencies, one with myocarditis and the other with a cerebrovascular accident.

## Discussion

Isolated military reservations, such as Adak, present specific problems regarding health care delivery to active duty personnel and dependents stationed there. Although it would be ideal to have a fully staffed and equipped hospital at such outposts, it is not needed. The population of Adak is skewed toward the young and healthy. The cost of a fully staffed, fully equipped hospital would far outweigh the benefits to this population. However, with no immediate referral center, it is imperative that a general surgeon be available to treat intra-abdominal emergencies, fractures, and significant trauma.

For a general surgeon, the transition from a major medical center with ready access to all consultation and diagnostic services to a branch hospital can be difficult. At the medical center, his practice is confined to general surgical problems. Ligamentous injuries and fractures are appropriately referred to the orthopedic surgeon, chronic tonsillitis to the otolarynogologist, scrotal masses to the urologist, and verrucae to the dermatologist. In short, a general surgeon at a medical center does not encounter or treat the types of injuries and diseases which will make up the bulk of his practice at a branch hospital; there he is expected to manage multiple subspecialty problems. Before deploying, it would be impossible for him to undertake a subspecialty review without some specific guidlines. Knowing, for example, that he is likely to treat sprains of the knee and ankle, a prudent physician could review the anatomy of the knee and ankle and the important points of diagnosis of sprains and soft tissue injuries of these joints. To establish such guidelines, I undertook the current analysis.

During the quarter studied, subspecialty and other problems comprised 61 percent of the clinical practice of the general surgeon at Branch Hospital, Adak. Of these, orthopedic complaints were the most common, accounting for 42 percent of the patients treated. Ligamentous injuries of the knee and ankle and low back pain comprised 48 percent of the orthopedic problems. The most common fracture treated was of the phalanx. The next most common fracture was of the metatarsal. Other than a single Colles fracture and a badly displaced fracture of the medial tibial condyle, there were no major fractures. The benign nature of the orthopedic injuries is due, in part, to the weather on Adak which significantly limits most outdoor activities, such as motorcycle riding, skydiving, etc. Soft tissue and ligamentous injuries were common, as one would expect in a young, relatively active population engaging in the kinds of organized indoor athletic programs existing on Adak.

Significant hand injuries, though not common, do occur with regularity. This is due to moderate, light industry on Adak (Seabee Detachment, aircraft maintenance, etc.). In addition, Branch Hospital, Adak is "base station" for SAR (Sea Air Rescue) missions in the Bering Sea and northern Pacific. The nearest surgeon is 900 miles to the west (at the Russian submarine base at Petropavlosk on the Kamchatka Peninsula in Siberia) and 1,200 miles to the east (at the hospital at Elmendorf). Because of this, any serious injuries (usually hand injuries) occurring on a vessel of any nationality (Russian, Japanese, and Swedish are the most common in the region) are evacuated to Adak.

Otolaryngologic problems were rare. I encountered only 16 patients, most of whom had chronic tonsillitis and were referred to Elmendorf for elective tonsillectomy. That ENT problems were not more common can be explained by the fact that most are screened in sick call by the general medical officer and appropriately referred. In addition, an otolaryngologist comes to Adak for 1 week twice a year and chronic ENT problems are appropriately scheduled for the time when the otolaryngologist will be on Adak. However, certain complaints do arise, such as hoarseness, which require indirect laryngoscopy before it can be determined if the patient needs a referral.

The most common other problem I treated was plantar verrucae.

Based on my clinical experience at Branch Hospital, Adak, I recommend the following as guidelines for surgeons preparing to deploy to surgically isolated billets:

- Review the anatomy of the ankle and knee.
- Review normal radiographs, especially those of the ankle and knee. It may be helpful to do this with a radiologist. Good reference texts are Kohler A, Zimmer EA: *Borderlands of the Normal and Early Pathology in Skeletal Roentgenology,* American ed 3. New York, Grune S. Stratton, 1968 and Keats TE, Smith TH: *Atlas of Normal Developmental Roentgen Anatomy.* Chicago, Year Book Medical Publishers, 1977.
- Review the physical examination of the ankle and the knee. A good reference text for this is DeGowin EL, DeGowin RL: *Bedside Diagnostic Examination,* ed 3. New York, MacMillan Publishing Co, 1976.
- Review casting techniques. It would be helpful to do this with one of the orthopedists. I spent a morning in the cast room at NRMC San Diego with an orthopedic resident reviewing common fractures and their management. While this was rewarding, it did not prepare me for the volume of soft tissue injuries I eventually treated.
- Review surgery of the hand with regard to the management of soft tissue trauma with and without fractures. A good reference text for this is Hand and upper extremity, in Converse JM: *Reconstructive Plastic Surgery,* ed 2. Philadelphia, Saunders, 1977, vol 6, pp 3000-3101.
- Review the technique of indirect laryngoscopy.

In addition to improving patient care, the ability of the general surgeon to handle subspecialty diagnosis and treatment would reduce the number of referrals for subspecialty consultation. Reducing the number of referrals from isolated billets would result in considerable savings in manhours and money. A referral from Adak to Elmendorf requires that the patient be gone from work a minimum of 72 hours. Transportation and billeting cost $316 per patient.

Although these data apply only to the surgical practice at Adak, they indicate where the prudent general surgeon should focus his or her attention in preparation for duty at an isolated billet. ☐

### RESIDENT RESEARCH ASSOCIATESHIPS IN BIOMEDICAL PROGRAMS

Applications are being accepted for the Resident Research Associateships program sponsored by the National Research Council (NRC) on behalf of the Naval Medical Research and Development Command (NMRDC). Postdoctoral and senior medical, biological, and behavioral scientists will participate in research conducted at the following command laboratories:

- Naval Medical Research Institute, Bethesda, MD
- Naval Submarine Medical Research Laboratory, Groton, CT
- Naval Aerospace Medical Research Laboratory, Pensacola, FL
- Naval Health Research Center, San Diego, CA

Areas of biomedical and behavioral research include underwater medicine, aviation medicine, microbiology-communicable diseases, biochemistry, biophysics, pharmacology, parasitology, virology, psychoacoustics, biomagnetics, environmental physiology, radiation biology, dental sciences, human performance sciences, and fleet health care.

Regular Research Associateships will be awarded to persons who have held the doctorate less than 5 years. Senior Research Associateships are awarded only to investigators who have held the doctorate 5 years or more. The NMRDC-NRC, National Academy of Sciences-National Academy of Engineering program for senior applicants was established in 1982.

Applications must be postmarked no later than 15 Jan 1983. For further details write: Associateship Office, (JH-608), National Research Council, 2101 Constitution Avenue, N.W., Washington, DC 20418.

### HSETC CORRESPONDENCE COURSES

One new and two revised correspondence courses are now available to Medical Department officers and enlisted personnel through the Naval Health Sciences Education and Training Command (HSETC).

- Supervision and Management, NAVEDTRA 10522: A new course addressing basic management theory. Text: *Supervision and Management* published by NAVFAC Public Works Training Center, Norfolk, VA. Consists of three assignments and evaluated at six points.
- Blood Component Therapy, NAVEDTRA 13121-B: A major revision of NAVEDTRA 13121-A. Designed to update personnel on current theory in component therapy. Text: *Blood Component Therapy, A Physician's Handbook,* third edition, 1981. Consists of two assignments and evaluated at four points.
- Physical Examinations and Health Records, NAVEDTRA 10509-D: A major revision of NAVEDTRA 10509-C. Added to the course is information addressing the maintenance and disposition of health records. Text: *Manual of the Medical Department,* chap 15, Physical Examinations; chap 16, Health Records; change 95, 25 Nov 1980. Consists of five assignments and evaluated at eight points.

Reservists who have completed earlier versions of these courses may receive additional credit toward retirement for completing the above major revisions.

Requests for enrollment should be forwarded on NAVEDTRA 1550/1 to Commanding Officer, Naval Health Sciences Education and Training Command, Correspondence Course Training (Code 212), Naval Medical Command, National Capital Region, Bethesda, MD 20814.

### EMERGENCY WAR SURGERY COURSE

There will be an Emergency War Surgery Course 2-4 Dec 1982 at NRMC Bremerton, WA. Topics will cover trauma and nuclear, chemical, and biological warfare casualties as well as deployment of the naval medical officer.

This course is approved by AMA Continuing Education for 18 credits.

For more information contact CDR M.E. Ahrens, MC, USNR, Program Director, Department of Surgery, Naval Regional Medical Center, Bremerton, WA. Telephone: Autovon 439-9221, Commercial (206) 478-9221.

### WHO IS THE OLDEST?

In this era of computer printouts, is it possible that there is some easy way to determine whether my father, who will be 90 on 1 Dec 1982, is the oldest surviving Navy physician?

His name is CAPT Charles Christopher Yanquell, MC, USN (Ret). He was a pioneer flight surgeon who never expected to survive the battles of several wars, much less all those early carrier landings. The question of who else is left is becoming a matter of some interest to him.

My father is very frail now. Word of old friends would add some much needed spice to his days. His address is 563 Alameda Boulevard, Coronado, CA 92118.

Julia Viera
6312 Kapalapala Place
Honolulu, HI 96825

# The Future of Navy Reserve Medicine

RADM John F. Kurtzke, MC, USNR-R

It does not require a Clausewitz to point out that there is only one purpose for any reserve force and that is mobilization. The Medical Department is no exception. The essential question then for Naval Reserve medicine now and in the future is, how ready are we for activation?

Over the years since World War II there has been an increasing emphasis on the readiness of the reserve forces. This has been especially prominent in recent times. It is safe to say that for the operational forces of the Navy and Marine Corps, the present situation is vastly improved, and probably approaching adequacy, given the current budgetary and manning constraints. We must ask, then, whether the Medical Department has kept pace with the rest of the Naval Reserve.

In FY80, the active military forces of the United States numbered somewhat over 2 million (Table 1). There was the potential to double this figure in short order by activating reserve and retired manpower. This pool can be subdivided according to its likely availability. Foremost would be the Selected Reserve of over 800,000 men. Next would be the individual Ready Reserves plus the retirees, which together comprised a possible 1.2 million. However, the Reserve Forces Policy Board estimated a 70 percent mobilization response for the Individual Ready Reserve (IRR), and the proportions available among the 800,000 retired—or the 90,000 Standby Reserve—were not defined in unclassified material. There are said to be over 9,000 doctors in the Standby Reserve. Therefore, the first call will fall on the Selected Reserve (Table 2). In the Navy and Marine Corps they numbered about 120,000.

**TABLE 1. Military Forces of the United States Approximate Manpower (x1000) by Category (FY80)**

| Category | Manpower (x1000) |
|---|---|
| Active Duty | 2,060 |
| Selected Reserve* | 826 |
| IRR | 404 |
| Standby Reserve | 91 |
| Retired Reserve | 328 |
| Retired Regular | 511 |
| Total Inactive | 2,160 |
| Total | 4,220 |

*Excludes U.S. Coast Guard Reserve
Source: Reserve Force Policy Board reports, FY80

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Dr. Kurtzke is Chief of the Neurology Service at the Veterans Administration Hospital, Washington, DC, Professor of Neurology and Vice Chairman of the Neurology Department at Georgetown University School of Medicine, Washington, DC, and is attached to the Chief, Naval Reserve Support Unit.

On the active side, the Navy had some 3,600 physicians (Table 3), as specified by law. Current manning throughout the Medical Department was quite close to authorized strength; only hospital corpsmen showed any appreciable shortfall (Table 4), and even here the deficit was under 8 percent. The officer corps were fully manned; for the Medical Corps this is a noteworthy change. These numbers are to increase, but at present they differ little for those cited.

The Navy Manpower Mobilization System (NAMMOS) is the successor to Project Readiness of 1977. Originating in the office of the Secretary of the Navy, it includes OSD and OPNAV membership. Its purpose is to match needs with capabilities in the event of mobilization. Current thinking in FY81 identified a need for almost 68,000 officers and men in the Navy Medical Department, to include 11,000 from the Selected Reserve and 21,000 from the IRR and retired communities (Table 5). The mobilization was envisioned as a two-stage process, an initial surge phase beginning with wartime manning and deployment of the active Navy, and a rapid buildup phase to commence on M+15. The most recent NAMMOS estimates provide for needs beyond these two phases, but the numbers listed here will suffice for illustration.

Phase I employed active duty and Selected Reserve personnel. Numbers required by corps for each program were specified (Table 6). Note that there will be a marked drawdown in CONUS hospital strength, with only 800 physicians to remain. At present there are about 250 interns and 750 residents in training. Excluding in-

**TABLE 2. Selected Reserve Manpower by Service. Approximate End Strength (30 Jun 80)**

| Service | Manpower |
|---|---|
| ARNG | 357,000 |
| USAR | 197,800 |
| USNR | 85,300 |
| USMCR | 33,500 |
| ANG | 94,500 |
| USAFR | 57,600 |
| DOD total | 825,600 |
| USCGR | 11,900 |
| Total | 837,500 |

Source: Reserve Force Policy Board reports, FY80

**TABLE 3. DOD Active Duty Military Physicians Authorized (FY80)**

| | |
|---|---|
| Army | 4,402 |
| Navy | 3,600* |
| Air Force | 3,542 |
| Total | 11,544 |

*Per title 10 USC, this is 0.65 percent of the sum of authorized strength of Navy and Marine Corps officers + regular permanent WO + regular EM + USNA midshipmen + midshipmen in flight training.

Source: BUMED (MED 02)

**TABLE 4. Navy Medical Department Active Duty Strength (30 Sept 80)**

| Corps | | Authorized | On Board |
|---|---|---|---|
| MC | | 3,600 | 3,574 |
| MSC | | 1,887 | 1,889 |
| DC | | 1,670 | 1,678 |
| NC | | 2,627 | 2,663 |
| | Total | 9,784 | 9,804 |
| PA | | 264 | 255 |
| HC | | 23,580 | 21,766 |
| DT | | 3,456 | 3,413 |
| | Total | 27,300 | 25,434 |
| Total | | 37,084 | 35,238 |

Source: BUMED (MED 02)

**TABLE 5. Navy Medical Department Mobilization Requirements Identified Under NAMMOS(a) by Source of Manpower (11 Jan 81)**

| Corps | AcDu | SelRes | Other (b) | Total |
|---|---|---|---|---|
| MC | 3,363 | 1,383 | 2,020 | 6,766 |
| MSC | 1,746 | 401 | 1,028 | 3,175 |
| DC (c) | 1,671 | 294 | 115 | 2,080 |
| NC | 3,887 | 1,153 | 4,611 | 9,651 |
| Total | 10,667 | 3,231 | 7,774 | 21,672 |
| HM | 21,327 | 7,122 | 13,239 | 41,688 |
| DT (d) | 3,438 | 539 | 224 | 4,201 |
| Total | 24,765 | 7,661 | 13,463 | 45,889 |
| Total | 35,432 | 10,892 | 21,237 | 67,561 |

(a) Distributable manpower, per NAMMOS; excludes other claimants
(b) IRR/Retired
(c) Phases I, II identify total 128 DC for medical mobilization
(d) Phases I, II identify total 230 DT for medical mobilization

**TABLE 6. Navy Medical Mobilization Requirements by Program, Corps, and Source: I. Initial Surge Phase (11 Jan 81)***

| | Corps | | | | | |
|---|---|---|---|---|---|---|
| Program | MC | MSC | DC | NC | HC | DT |
| A. Active | | | | | | |
| 1. RDF | 494 | 261 | 39 | 996 | 3,383 | 70 |
| 2. USMC | 459 | 173 | | 72 | 3,821 | |
| 3. Fleet/Sqdrn | 250 | 44 | | | 2,421 | |
| 4. CB Support | 8 | | | | 80 | |
| 5. O/S Hosp | 243 | 133 | | 254 | 1,729 | |
| 6. Headquarters | 38 | 119 | | 16 | 95 | |
| 7. Logistical Supp. | 59 | 131 | | 17 | 374 | |
| 8. Trng. & Research | 72 | 125 | | 41 | 491 | |
| 9. CONUS Hosp. | 795 | 284 | | 256 | 2,444 | |
| B. SelRes | | | | | | |
| 1. RDF | 54 | 29 | 5 | 111 | 384 | 10 |
| 2. USMC | 146 | 52 | | 24 | 1,743 | |
| 3. Fleet/Sqdrn | 698 | 57 | | 30 | 1,516 | |
| 4. CB Support | 17 | | | | 170 | |
| 6. Headquarters | 11 | 9 | | 3 | | 7 |
| 7. Logistical Supp. | 10 | 46 | 9 | | 125 | |
| 10. Pers. Mob. Teams | 30 | | | | | |
| 11. Mil. Sealift Com. | 2 | | | | 15 | |

*Excludes requirements for other claimants (including Dental Corps)
Source: BUMED (MED 02)

terns, we are stripping CONUS down to some 550 physicians in Phase I.

In Phase II the remainder of the active duty and Selected Reserve personnel would be deployed (Table 7). CONUS hospitals would be replenished from among all the inactive components, but in particular from the IRR and retired forces. Steps are now being taken which I think will make available the IRR in considerable numbers. All active duty physicians, including interns, are by now involved in mobilization.

The forces required by phase are summarized in Table 8. Almost the entire regular Medical Department will be utilized. Note that the active duty Nurse Corps requirements were 3,900, while their current authorized strength was only 2,600. From the IRR and retired communities there were expected to arrive 2,000 physicians, 1,000 MSC officers, another 4,600 nurses, and 13,000 corpsmen. It is these numbers in particular that pose major questions.

As stated above, the medical mobilization requirements for the Selected Reserve totaled some 11,000 officers and men (Table 9). However, the authorized strength in FY81 was only about two-thirds of these requirements, and the actual on-board strength was half these needs. Where some 1,400 physicians were required, only 800 were authorized and 600 on board. Only the dental department met its numbers. There are now steps in process to increase the authorized strength considerably. In the short term this will make the shortfall even more dramatic.

If one looks at the program needs, though, it would appear that the current mix of the available Selected Reserve physicians was quite good. Only program 4D, the medical programs, had any appreciable shortfall (Table 10). This would seem to be program 32, i.e., the Medical Contingency Response Units (MEDCRU's), surgical teams, and advanced base hospitals as major components. Overall, the needs would appear to be met rather well. But there are problems.

By pay grade, only the Medical Service Corps had an appropriate distribution (Table 11). Lower ranks were lacking in the Nurse Corps. But look at the Medical Corps, where there was a total inversion of the desired and the actual rank structures. The Hospital Corps did well in the higher pay grades, but again the lower rates were in marked deficit (Table 12).

One could well dismiss the rank discrepancies, particularly in emergencies, if the only problem posed was the grade itself. But senior physicians do not make especially agile members for combatant vessels or the Fleet Marine Force. More important is the point that most of the senior physicians who have remained in the Selected Reserve are specialists and, for the mobilization planners at that time, the wrong specialists (Table 13). NAMMOS required 10 times the number of GMO's as were available. Nearly the same ratio holds for flight surgeons, who are also in short supply on the active side. Major shortages existed for general surgeons and for orthopedic surgeons, again, categories inadequately manned by the regulars. For almost every specialty demanded there was a major discrepancy in the numbers available in the Selected Reserve. And even ignoring that aspect, only half the authorized billets or 30 percent of the mobilization requirements were reflected by this list.

There is currently in process a major revamping of the mobilization needs, with documentation for each billet required. Whether the mismatch noted in Tables 13 and 14 will persist is unknown. My expectation is that for Table 14, there will be less of a discrepancy.

But at this moment there are still over 200 Selected Reserve physicians for whom there are no current mobilization allowances. Moreover, none of these are in short supply on the active side (Table 14). And yet, as we have seen above, all 600 physicians have been earmarked for specific programs (Table 10). We now have in excess of 660 Selected Reserve physicians, but each still has a mobilization billet as defined under the structure of Table 10.

In summation, the Medical Department mobilization requirements envisioned, even under the FY81 NAMMOS plans for the Selected Reserve, are far beyond actual capabilities even in terms of simple numbers. What is actually available from the IRR and the retirees still appears uncertain. And when one looks at the mix of specialties required versus those available, there really is cause for concern. It should be obvious that physicians are not interchangeable. Senior cardiologists make very poor battalion surgeons. The basic fallacy, I believe, lies in extrapolating from active force assignments to reserve billets. A psychiatrist would not be chief of surgery at Bethesda. In the Reserve such a mismatch has not been uncommon.

One strategy for medical mobilization has been that the active forces move out when the whistle blows to be replaced by the Selected Reserve. As other resources become available, the selective reservists also go to join the combat forces. This is, I believe, the basic concept underlying the formation in 1979 of the 101 Medical Contingency Response Units—the MEDCRU's. Each such unit has a designated naval medical facility to which it will report on M day, and these are, in fact, almost entirely the regional medical centers.

Yet it seems to me that the current NAMMOS billets for the Selected Reserve have little to do with this CONUS backfill. The billets demanded by NAMMOS, in turn, have little relationship to the qualifications of the selective reservists, regardless of their drill sites. I seriously doubt that the MEDCRU's will contain the appropriate mix of specialists for their intended medical centers even if NAMMOS altered its requirements to accommodate this backfill. In addition, it does not seem wise to plan

**TABLE 7. Navy Medical Mobilization Requirements by Program, Corps, and Source: II. Rapid Buildup Phase (11 Jan 81)***

| | Corps | | | | | |
|---|---|---|---|---|---|---|
| Program | MC | MSC | DC | NC | HC | DT |
| A. Active Duty | | | | | | |
| 12. Fleet Hosp | 945 | 476 | 60 | 2,235 | 6,489 | 120 |
| B. SelRes | | | | | | |
| 12. Fleet Hosp | 234 | 118 | 15 | 560 | 1,621 | 30 |
| 9. CONUS Hosp. | 180 | 90 | | 425 | 1,541 | |
| C. Other (IRR/Ret) | | | | | | |
| 12. Fleet Hosp. | | | | | | |
| 9. CONUS Hosp. | 1,910 | 955 | | 4,538 | 2,874 | |
| 13. AFEES | 96 | 73 | | 73 | 296 | |
| 11. Mil. Sealift Com. | 14 | | | | 69 | |

*Excludes requirements for other claimants (including Dental Corps)
Source: BUMED (MED 02)

### TABLE 8. Medical Mobilization Requirements by Phase, Corps, and Source (11 Jan 81)

| | Source | MC | MSC | DC* | NC | HC | DT* |
|---|---|---|---|---|---|---|---|
| | I. Initial Surge | | | | | | |
| A. | AcDu | 2,418 | 1,270 | 39 | 1,652 | 14,838 | 70 |
| B. | SelRes | 968 | 193 | 14 | 168 | 3,960 | 10 |
| | Total | 3,386 | 1,463 | 53 | 1,820 | 18,798 | 80 |
| | II. Rapid Buildup | | | | | | |
| A. | AcDu | 945 | 476 | 60 | 2,235 | 6,489 | 120 |
| B. | SelRes | 414 | 208 | 15 | 985 | 3,162 | 30 |
| C. | Other | 2,020 | 1,028 | | 4,611 | 13,239 | |
| | Total | 3,379 | 1,712 | 75 | 7,831 | 22,890 | 150 |
| | Total | | | | | | |
| A. | AcDu | 3,363 | 1,746 | 99 | 3,887 | 21,327 | 190 |
| B. | SelRes | 1,382 | 401 | 29 | 1,153 | 7,122 | 40 |
| C. | Other | 2,020 | 1,028 | | 4,611 | 13,239 | |
| | Total | 6,765 | 3,175 | 128 | 9,651 | 41,688 | 230 |
| | | | Total: 61,637 | | | | |

*Excludes dental programs; total requirements 2,080 DC, 4,201 DT for grand total 67,560.
Source: BUMED (MED 02)

### TABLE 9. Navy Medical Department Selected Reserve Strength (11 Jan 81)

| Corps | Authorized | On Board | Mob Req* |
|---|---|---|---|
| MC | 821 | 613 | 1,383 |
| MSC | 300 | 244 | 401 |
| DC | 378 | 328 | 294 |
| NC | 235** | 250 | 1,153 |
| Total | 1,734 | 1,435 | 3,231 |
| HM | 5,403 | 3,850 | 7,122 |
| DT | 514 | 604 | 539 |
| Total | 5,917 | 4,454 | 7,661 |
| Total | 7,651 | 5,889 | 10,892 |

*Distributable manpower identified under NAMMOS
**407 NC authorized as of 1 Feb 1981
Source: BUMED (MED 02)

### TABLE 10. Nav
### Mobilization Allo

| | Program |
|---|---|
| OA | Submarine Forc |
| OB | Mine Forces |
| OC | Mobile Log. For |
| OD | Surface Combat |
| OE | Air Forces |
| OH | Amphibious For |
| OI | Marine Corps F |
| OJ | Special Warfare |
| OO | |
| O4 | Construction Fo |
| O5 | Staff Mine Divs. |
| O7 | Coastal River Sc |
| IF | Mil. Sealift Com |
| IJ | Nav. Control Sh |
| 2B | Ship Systems Co |
| 2L | Bases & Stations |
| 2M | Unified/Shore C |
| 3D | Ordnance Systen |
| 3H | Personnel Systen |
| 4D | Medical Progran |
| 5C | Air Systems |
| 5K | Nav. Material C |
| 6R | Fleet/Force Con |
| | Total |

Source: BUMED (MED 02)

## eserve Physicians
## ogram (22 Mar 81)

| Authorized | On Board |
|---|---|
| 22 | 23 |
| 1 | 0 |
| 11 | 6 |
| 23 | 30 |
| 107 | 96 |
| 16 | 11 |
| 157 | 124 |
| 6 | 4 |
| 2 | 0 |
| 22 | 15 |
| 6 | 1 |
| 2 | 2 |
| 11 | 8 |
| 0 | 1 |
| 2 | 7 |
| 21 | 26 |
| 2 | 0 |
| 0 | 5 |
| 30 | 25 |
| 379 | 250 |
| 1 | 2 |
| 0 | 1 |
| 1 | 2 |
| 822 | 639 |

## TABLE 11. Navy Medical Officer Selected Reserve Strength by Rank (22 Mar 81)

| Pay Grade | MC (2105) | | MSC (2305) | | NC (2905) | |
|---|---|---|---|---|---|---|
| | Auth | On Bd | Auth | On Bd | Auth | On Bd |
| 01 | | | 2 | 7 | 0 | 1 |
| 02 | | | 44 | 26 | 115 | 16 |
| 03 | 332 | 43 | 105 | 103 | 187 | 173 |
| 04 | 350 | 146 | 103 | 77 | 85 | 75 |
| 05 | 101 | 297 | 37 | 31 | 12 | 9 |
| 06 | 49 | 153 | 6 | 5 | 1 | 0 |
| Total | 822 | 639 | 297 | 249 | 407 | 274 |

Source: BUMED (MED 02)

## TABLE 12. Navy Selected Reserve Hospital Corpsmen by Rate (22 Mar 81)

| Pay Grade | Auth | On Board |
|---|---|---|
| E1 | 0 | 4 |
| E2 | 0 | 67 |
| E3 | 877 | 244 |
| E4 | 2,012 | 792 |
| E5 | 1,229 | 1,518 |
| E6 | 829 | 893 |
| E7 | 317 | 301 |
| E8 | 96 | 97 |
| E9 | 12 | 19 |
| Total | 5,372 | 3,935 |

Source: BUMED (MED 02)

**TABLE 13. Navy Selected Reserve Physicians by Specialties (NOBC) With Mobilization Allowances (22 Mar 81), Compared With FY80 Active Duty Strength (Total 3,309)**

| NOBC | Specialty | Authorized | On Board | AcDu |
|---|---|---|---|---|
| 0002 | Staff MO | 24 | 2 | n.i.* |
| 0004 | Dir. Clin. Med. Svcs. | 1 | 5 | n.i. |
| 0016 | Chief Clin. Svcs. | 2 | 3 | n.i. |
| 0030 | Med. Research Off. | 1 | 11 | 37** |
| 0040 | Not Identified | 1 | 0 | |
| 0045 | Flight Surg. | 97 | 11 | 165** |
| 0048 | Head Med. Dept. | 3 | 6 | n.i. |
| 0070 | Primary Care MO | 325 | 31 | 491 |
| 0086 | Not Identified | 2 | 0 | |
| 0090 | Undersea MO | 11 | 3 | 50 |
| 0101 | Internist | 13 | 68 | 273 |
| 0115 | Psychiatrist | 3 | 36 | 102 |
| 0118 | Anesthesiologist | 74 | 18 | 91 |
| 0131 | Radiologist (Dx) | 4 | 19 | 83 |
| 0169 | Prev. Med. (Pbl. Hl.) | 7 | 2 | 0 |
| 0214 | General Surgeon | 110 | 34 | 100** |
| 0224 | Neurosurgeon | 5 | 9 | 18 |
| 0234 | Ophthalmology | 5 | 39 | 45 |
| 0244 | Orthopedic Surg. | 58 | 32 | 59** |
| 0249 | Otolaryngology | 1 | 23 | 39 |
| 0264 | Thoracic/CV Surg. | 9 | 8 | 13 |
| 0269 | Urologist | 1 | 15 | 33 |
| 07xx | Deleted NOBC | 2 | 0 | |
| 0000 | 000 & Other NOBC | 63 | 41 | |
| | Total | 822 | 416 | 1,599 |

*n.i. = not identified
**Major shortages in re-authorized AcDu billets
Source: BUMED (MED 02)

early mobilization around programs, such as the fleet hospitals, which are not immediately available. And lastly, it is obvious that the pool of physicians currently in the Selected Reserve is far too small to provide the manning level required even under the FY81 NAMMOS "initial surge" and "rapid buildup" phases. Except for dentistry, this is true of the other corps of the Bureau as well.

What can be done to improve this picture? Certainly we need more medical personnel in the Selected Reserve or its equivalent and, in particular, we need more junior people in all the corps. Efforts are in process to address this aspect.

But there is the other problem of round pegs for round holes. It is my belief that the current *modus operandi* is not likely to achieve success. Speaking to the Medical Corps alone, I think the first and most important step to be taken is to sever all linkage between mobilization billets and regular duty stations, whether active or inactive. After that is accomplished, then the following sequence might seem appropriate:

(1) The operational forces of the Navy and Marine Corps identify realistically specific medical officer billets required for all phases of mobilization with priority scores approved at higher levels for these billets.

(2) BUMED would then identify specific individuals with the appropriate qualifications to fill these billets from among the active forces and the Selected Reserve.

(3) BUMED would also identify specific individuals of the Selected Reserve and the other resources available for specific billets within activi-

ties under its own cognizance. This would include the backfill for step two.

(4) All members of the Medical Department, whether active, Reserve, or retired, would submit an officer's qualification questionnaire, or its equivalent for the enlisted, to BUMED. This would provide real numbers for the IRR, Standby Reserve, and retirees. The Officer Qualification Questionnaire would be basis for updated specialty codes. BUMED would specify priorities and substitutions among codes in terms of mobilization needs.

(5) Mobilization orders would be written for and provided to every individual so identified for whom there is a need, these orders to be updated annually. This includes the active side.

A scheme such as this could provide a rational allocation of available resources and a realistic and efficient plan of mobilization. It would also alert the decisionmakers to problems that need solution before we can properly fulfill this function.

With all its faults, the current medical mobilization picture is the brightest it has been since World War II. There is intensive and continued thought and effort to this end by both the operating forces and BUMED. There is increasing collaboration between the active and Reserve sides, both line and staff. We do have the nucleus of a strong and effective medical reserve, but we must do more. Certainly we need more people in the Reserve, especially at the junior ranks. But even more so, we need a comprehensive plan for mobilization that will use what we have at present as effectively as possible—and we need it now. □

**TABLE 14. Navy Selected Reserve Physicians by Specialties (NOBC) Without Mobilization Allowances (22 Mar 81), Compared With FY80 Active Duty Strength (Total 3,309)**

| NOBC | Specialty | Authorized | On Board | AcDu |
|---|---|---|---|---|
| 0008 | Reg. Hlth. Care Coord. | 0 | 1 | n.i.* |
| 0010 | Chmn, Dept. (teach hosp) | 0 | 8 | n.i. |
| 0014 | District MO | 0 | 1 | n.i. |
| 0020 | Chief of Services | 0 | 28 | n.i. |
| 0025 | Grad. Med. Educ. Off. | 0 | 3 | 2 |
| 0051 | Emerg. Med. Spec. | 0 | 12 | 2 |
| 0105 | Pediatrician | 0 | 33 | 207 |
| 0108 | Family Practit. | 0 | 43 | 148 |
| 0111 | Dermatologist | 0 | 8 | 33 |
| 0121 | Neurologist | 0 | 6 | 24 |
| 0125 | Phys. Med. Reh. Off. | 0 | 2 | 0 |
| 0135 | Radiologist (Therap.) | 0 | 2 | 7 |
| 0140 | Nuclear Med. Spec. | 0 | 1 | 5 |
| 0150 | Pathologist (Anat.) | 0 | 1 | 87 |
| 0154 | Pathologist (Clin. & Anat.) | 0 | 20 | |
| 0160 | Prev. Med. (Genl.) | 0 | 3 | 25 |
| 0166 | Prev. Med. (Occup.) | 0 | 7 | |
| 0163 | Prev. Med. (Aerospace) | 0 | 2 | 32 |
| 0220 | Not Identified | 0 | 1 | |
| 0229 | OB/GYN | 0 | 34 | 113 |
| 0254 | Plastic Surgeon | 0 | 6 | 7 |
| | Grad. Med. Education | | | 1,020 |
| | Total | 0 | 222 | 1,710 |

*n.i. = not identified

**Major shortages in re-authorized AcDu billets

Source: BUMED (MED 02)

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